AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Previously Presented) A direct memory access memory corruption detection system embodied on a computer readable medium comprising the following computer executable components:

an access data store that stores access information associated with memory, the access data store comprising an access table, the access table comprising a source identifier field, a memory address field and an access attribute field, the access attribute field distinguishes from amongst two or more of read, read and write, write, and no access to indicate access for a combination of source and memory range identified in the source identifier and memory address fields; and.

a memory controller that employs the access information to determine whether a requested direct memory access is permitted and rejects the requested direct memory access if it is not permitted.

2. (Previously Presented) The direct memory access memory corruption detection system of claim 1, the access information comprising a direct memory access request.

3. (Previously Presented) The direct memory access memory corruption detection system of claim 2, the direct memory access request comprising a transaction type.

4. (Previously Presented) The direct memory access memory corruption detection system of claim 1, the direct memory access request comprising a source identifier.

5. (Original) The direct memory access memory corruption detection system of claim 4, the source identifier being associated with a device.

6. (Cancelled).

7. (Original) The direct memory access memory corruption detection system of claim 1, the access information comprising at least one permitted memory address.

8. (Original) The direct memory access memory corruption detection system of claim 1, the access information comprising at least one disallowed memory address.

9. (Original) The direct memory access memory corruption detection system of claim 1, the request comprising a read action or a write action.

10. (Previously Presented) The direct memory access memory corruption detection system of claim 1, the request comprising a peripheral component interconnect express bus transaction.

11. (Previously Presented) The direct memory access memory corruption detection system of claim 1, the memory controller coupled to a device through a peripheral component interconnect express bus, the device providing the request.

12. (Original) The direct memory access memory corruption detection system of claim 1, the memory controller further providing error information, if the requested direct memory access is not permitted.

13. (Original) The direct memory access memory corruption detection system of claim 12, the error information comprising source information associated with the requested direct memory access.

14. (Previously Presented) A direct memory access memory corruption detection system embodied on a computer readable medium comprising the following computer executable components:

a memory controller that includes an access table store that stores access information associated with memory, the access information comprising at least one source identifier, at least one memory address and at least one access attribute, the at least one access attribute distinguishes from amongst two or more of read, read and write, write, and no access to indicate access for a combination of source and memory range identified by the at least one source identifier and at least one memory address, the memory controller employs the access information to determine whether a requested direct memory access is permitted and rejects the requested direct memory access if it is not permitted; and,

a device driver that programs a device for a direct memory access operation, and, provides the access information to the memory controller *via* a direct memory access application interface.

15. (Previously Presented) The direct memory access memory corruption detection system of claim 14, the device driver providing access information comprising a range of physical memory, a source identifier, and, an access attribute.

16. (Previously Presented) The direct memory access memory corruption detection system of claim 14, the request comprising a peripheral component interconnect express bus transaction.

17. (Previously Presented) A method that facilitates detection of direct memory access memory corruption comprising:

receiving a request for a direct memory access transaction, the request comprising a source identifier, at least one memory address, and a transaction access attribute; and,

determining whether the request is permitted based, at least in part, stored access information and the request, the stored access information comprising at least one source identifier, at least one memory address and at least one access attribute, the at least one access attribute distinguishes from amongst two or more of read, read and write, write, and no access to

indicate access for a combination of source and memory range identified by the at least one source identifier and at least one memory address; and

rejecting the requested direct memory access if it is not permitted.

18. (Cancelled)

19. (Original) The method of claim 17, storing access information in a access data store, the access information comprising a source identifier, at least one memory address and an access attribute.

20. (Original) A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 17.

21. (Previously Presented) A data packet transmitted between two or more components embodied on a computer readable medium that facilitates detection of direct memory access memory corruption, the data packet comprising:

a data field comprising a corrected platform error event, the corrected platform error event being based, at least in part, upon a determination that a requested direct memory access is not permitted, the determination being based, at least in part, upon access information stored in an access table and the requested direct memory access, the access information comprising at least one source identifier, at least one memory address and at least one access attribute, the at least one access attribute distinguishes from amongst two or more of read, read and write, write, and no access to indicate access for a combination of source and memory range identified by the at least one source identifier and at least one memory address.

22. (Previously Presented) A direct memory access memory corruption detection system embodied on a computer readable medium comprising:

means for storing access information associated with memory;

means for receiving a request for a direct memory access;

means for determining whether a requested direct memory access is permitted based, at least in part, upon the stored access information and the request, the stored access information comprising at least one source identifier, at least one memory address and at least one access attribute, the at least one access attribute distinguishes from amongst two or more of read, read and write, write, and no access to indicate access for a combination of source and memory range identified by the at least one source identifier and at least one memory address; and,

means for rejecting the requested direct memory access if it is not permitted.